Assessing Systemic Risk and its Determinants for Advanced and Major Emerging Economies: the Case of ΔCoVaR

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Abstract. The paper examines conditional risk relationships among sovereign CDS prices and stock market indices for 11 economies with particular relevance for international portfolio investment holdings (Canada, China, Brazil, France, Germany, Italy, Japan, Russia, Spain, the USA, and the UK). The analysis is based on delta conditional value at risk (ΔCoVaR). The UK, France, and Italy significantly contribute to the overall systemic risk in both markets. The USA, the UK, and Russia appear to be important contributors to it in the stock market. In the meantime, the advanced economies exhibit much higher resilience to the systemic risk propagation in comparison with China, Brazil and Russia. Gross government debt to GDP, state fragility index, EU membership and world gross GDP share of a country in distress are key determinants of ΔCoVaRs for the sovereign CDS prices. Stock market total value traded to GDP and world gross GDP share of a country in distress drive ΔCoVaRs in the stock market. In both cases geographic distance tends to deter systemic risk propagation. Inflation, trade and financial openness as well as common language and time zone differences are less important predictors of bilateral ΔCoVaR exposures.

Keywords: CDS, CoVaR, ΔCoVaR, financial depth, gravity equation, quantile regression, spillover, systemic risk

JEL codes: F37, G15, G23.

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